Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the

application:

Listing of Claims:

1.   (Currently Amended) A method for characterizing a quality of a network path,
including a first segment and a second segment, the method comprising:

modeling negative linear exponential equations for deriving first and second metrics,
wherein modeling one of the negative linear exponential equations comprises determining a first
parameter of the negative exponential equation corresponding to underestimating a quality
characterization, determining a second parameter of the negative exponential equation
corresponding to overestimating the corresponding quality characterization, and determining a
third parameter from an average of the first and second parameters;

wherein the first and second metrics are at least in part quality characterizations of a
same plurality of one or more network applications;

accessing the first metric and the second metric,

the quality characterization characterizes a quality of the same plurality of one
or more network applications running at one or more segment end-points,

the first metric and the second metric are at least partly a function of a
same plurality of one or more elementary network parameters,

the plurality of one or more network parameters include one or more of
delay, jitter, loss, currently available bandwidth, and intrinsic bandwidth,

the first metric is at least partly the function of the same plurality of
network parameters of the first segment,

the one or more segment end points include one or more endpoints of the
first segment,

the second metric is at least partly the function of the same plurality of
network parameters of the second segment, and

the one or more segment end points include one or more endpoints of the

second segment; and

adding the first metric and the second metric to generate a third metric,

wherein the third metric is at least partly the function of the same plurality of one or more network parameters of the network path,

the one or more segment end points include one or more endpoints of the network path, and

the third metric is a quality characterization of the same plurality of one or more applications.

2.   (Previously Presented) The method of claim 1, further comprising:

prior to accessing the first or the second metric, generating at least one of the first metric and the second metric.

3.   (Previously Presented) The method of claim 1, further comprising:

prior to accessing the first or the second metric, receiving at least one of the first metric and the second metric.

4.   (Original) The method of claim 1, wherein at least one of the plurality of one or more network parameters is dynamic.

5.   (Original) The method of claim 1, wherein at least one of the plurality of one or more network parameters is static.

6.   (Original) The method of claim 1, wherein the plurality of one or more network applications include at least one of UDP and TCP applications.

7.   (Original) The method of claim 6, wherein the plurality of one or more network applications include UDP applications.

8.   (Original) The method of claim 7, wherein the plurality of one or more network applications include voice.

9. (Original) The method of claim 7, wherein the plurality of one or more network applications include video.

10. (Original) The method of claim 9, wherein the plurality of one or more network applications include video conferencing.

11. (Original) The method of claim 6, wherein the plurality of one or more network applications include TCP applications.

12. (Original) The method of claim 11, wherein the plurality of one or more network applications include HTTP.

13. (Previously Presented) The method of claim 12, wherein the plurality of one or more network applications include one of HTTP/1 .0 and HTTP/1.1.

14. (Canceled).

15. (Original) The method of claim 11, wherein the plurality of one or more network applications include ftp.

16. (Original) The method of claim 11, wherein the plurality of one or more network applications include telnet.

17. (Original) The method of claim 1, wherein the plurality of one or more network parameters include delay.

18. (Original) The method of claim 1, wherein the plurality of one or more network parameters include jitter.

19. (Original) The method of claim 1, wherein the plurality of one or more network parameters include loss.

20.   (Original) The method of claim 1, wherein the plurality of one or more network parameters include currently available bandwidth.

21.   (Original) The method of claim I, wherein the plurality of one or more network parameters include intrinsic bandwidth.

22.   (Previously Presented) The method of claim 1, wherein the first, second, and third metrics include non-performance related characteristics.

23.   (Previously Presented) The method of claim 22 , wherein the non-performance related characteristics includes pre-specified route preferences.

24.   (Currently Amended) A network system, comprising:

a plurality of one or more network devices configured, such that if the network device is coupled to at least a network path including a first segment and a second segment, the plurality of one or more network devices performing:

modeling negative linear exponential equations for deriving first and second metrics, wherein modeling one of the negative linear exponential equations comprises determining a first parameter of the negative exponential equation corresponding to underestimating a quality characterization, determining a second parameter of the negative exponential equation corresponding to overestimating the corresponding quality characterization, and determining a third parameter from an average of the first and second parameters;

wherein the first and second metrics are at least in part quality characterizations of a same plurality of one or more network applications;

accessing the first metric and the second metric,

the quality characterization characterizes a quality of the same plurality of one or more network applications running at one or more segment end-points,

the first metric and the second metric are at least partly a function of a same plurality of one or more elementary network parameters,

the plurality of one or more network parameters include one or more of

delay, jitter, loss, currently available bandwidth, and intrinsic bandwidth,

the first metric is at least partly the function of the same plurality of network parameters of the first segment,

the one or more segment end points include one or more endpoints of the first segment,

the second metric is at least partly the function ofthe same plurality of network parameters of the second segment, and

the one or more segment end points include one or more endpoints of the second segment; and

adding the first metric and the second metric to generate a third metric,

wherein the third metric is at least partly the function of the same plurality of one or more elementary network parameters of the network path,

the one or more segment end points include one or more endpoints of the network path, and

the third metric is a quality characterization of the same plurality of one or more applications.

25.   (Previously Presented) The network system of claim 24, wherein the network device further performs:

prior to accessing the first or the second metric, generating at least one of the first metric and the second metric.

26.   (Previously Presented) The network system of claim 24, wherein the network device further performs:

prior to accessing the first or the second metric, receiving at least one of the first metric and the second metric.

27.   (Previously Presented) The network system of claim 24, wherein at least one of the plurality of one or more network parameters is dynamic.

28.   (Previously Presented) The network system of claim 24, wherein at least one of the plurality of one or more network parameters is static.

29.   (Previously Presented) The network system of claim 24, wherein the plurality of one or more network applications include at least one of UDP and TCP applications.

30.   (Previously Presented) The network system of claim 29, wherein the plurality of one or more network applications include UDP applications.

31.   (Previously Presented) The network system of claim 30, wherein the plurality of one or more network applications include voice.

32.   (Previously Presented) The network system of claim 30, wherein the plurality of one or more network applications include video.

33.   (Previously Presented) The network system of claim 32, wherein the plurality of one or more network applications include video conferencing.

34.   (Previously Presented) The network system of claim 29, wherein the plurality of one or more network applications include TCP applications.

35.   (Previously Presented) The network system of claim 34, wherein the plurality of one or more network applications include HTTP.

36.   (Previously Presented) The network system of claim 35, wherein the plurality of one or more network applications include one of HTTP/1.0 and HTTP/1.1.

37.   (Canceled).

38.   (Previously Presented) The network system of claim 34, wherein the plurality of one or more network applications include ftp.

39.   (Previously Presented) The network system of claim 34, wherein the plurality of one or more network applications include telnet.

40.   (Previously Presented) The network system of claim 24, wherein the plurality of one or more network parameters include delay.

41.   (Previously Presented) The network system of claim 24, wherein the plurality of one or more network parameters include jitter.

42.   (Previously Presented) The network system of claim 24, wherein the plurality of one or more network parameters include loss.

43.   (Previously Presented) The network system of claim 24, wherein the plurality of one or more network parameters include currently available bandwidth.

44.   (Previously Presented) The network system of claim 24, wherein the plurality of one or more network parameters include intrinsic bandwidth.

45.   (Previously Presented) The network system of claim 24, wherein the first, second, and third metrics include non-performance related characteristics.

46.   (Original) The network system of claim 45, wherein the non-performance related characteristics includes pre-specified route preferences.

47.   (Previously Presented) The network system of claim 24, further comprising:
a plurality of one or more inputs adapted to be coupled to the network path; and
a plurality of one or more outputs coupled to the plurality of one or more inputs,
wherein responsive to a plurality of one or more packets arriving to the network device through the plurality of one or more inputs, the network device selects at least one output from the plurality of one or more outputs, and
the at least one output is determined at least partly using at least one of the first metric, second metric, and third metric.

48.   (Previously Presented) The method of claim 1, wherein the function of the

same plurality of one or more network parameters is a combination of multiple component functions, wherein each of the multiple component functions is tailored to measure a performance characteristic of a corresponding one of the one or more network parameters.

49.   (Previously Presented) The method of claim 1, wherein the first metric and the second metric are both derived from mean opinion scores.

50.   (Previously Presented) The method of claim 1, wherein modeling negative linear exponential equations comprises fitting curves corresponding to the quality characterizations.

51.   (Canceled).

52.   (Canceled).

53.   (Previously Presented) The method of claim 1, wherein a single negative linear exponential equation models both voice and TCP traffic, and further wherein a parameter of the single negative linear exponential equation is derived from first and second parameters of negative linear exponential equations corresponding to voice and TCP traffic, respectively.

54.   (Currently Amended) A method of characterizing a quality of a network path, including a first segment and a second segment, the method comprising:

using products of negative exponential functions for deriving first and second metrics, wherein deriving one of the negative linear exponential equations comprises determining a first parameter of the negative exponential equation corresponding to underestimating a quality characterization, determining a second parameter of the negative exponential equation corresponding to overestimating the corresponding quality characterization, and determining a third parameter from an average of the first and second parameters;

wherein the first and second metrics are at least in part quality characterizations of a same plurality of one or more network applications;

accessing the first metric and the second metric,

the quality characterization characterizes a quality of the same plurality of one or more network applications running at one or more segment end-points,

the first metric and the second metric are at least partly a function of a same plurality of one or more elementary network parameters whose individual performance is modeled using a negative exponential function,

the plurality of one or more network parameters include one or more of delay, jitter, loss, currently available bandwidth, and intrinsic bandwidth,

the first metric is at least partly the function of the same plurality of network parameters of the first segment,

the one or more segment end points include one or more endpoints of the first segment,

the second metric is at least partly the function of the same plurality of network parameters of the second segment, and

the one or more segment end points include one or more endpoints of the second segment; and

adding the first metric and the second metric to generate a third metric,

wherein the third metric is at least partly the function of the same plurality of one or more network parameters of the network path,

the one or more segment end points include one or more endpoints of the network path, and

the third metric is a quality characterization of the same plurality of one or more applications.